

### **REMARKS**

The Examiner maintained the §102 rejection of claim 21 as being anticipated by Lee. Claim 21 is directed to a Wavelength Division Multiplexing (WDM) optical network comprising a plurality of nodes connected in a loop. Claim 21 recites **both** an “Amplified Spontaneous Emission (ASE) recirculation in the loop which is used for gain control,” **and** “a link control laser configured to inject laser radiation centered around a  $\lambda_{\text{LINK}}$  wavelength at a point of the loop where it is desired that a lasing peak be generated and allowed to circulate in the loop.” Lee, which discloses an automatic recovery method for a looped WDM network, does not teach both ASE and a link control laser.

Lee monitors the optical power in a pair of parallel optical links that connect a plurality of nodes in a closed loop. Whenever Lee detects “a significant gain” in optical power, Lee determines that a link failure has occurred and switches transmission paths. *Lee*, col. 5, ll. 30-45. The Examiner cites column 5, lines 34-39 to support the contention that Lee teaches both an ASE and a link control laser. For convenience, “[i]f the loop gain of the closed loop 20 is larger than 1, then some of the wavelength of Amplified Spontaneous Emission (ASE) noise generated in the optical amplifiers (OA) obtain a significant gain and a lasing begins.” This passage discloses ASE, but it does not disclose a link control laser that injects laser radiation into the loop as claimed. The only thing this passage stands for is that lasing begins responsive to detecting a significant gain in ASE noise. Thus, Lee teaches using ASE to cause the lasing to start, but never mentions a link control laser.

A *legally sufficient* §102 rejection can never be based on unsubstantiated contentions and conclusory statements. In this case, the Examiner assumes the existence of a link control laser simply because Lee mentions lasing and a closed loop structure. However, Lee does not support this assumption. The Examiner is requested to explicitly cite the passage in Lee that discloses a “link control laser” as claimed. Otherwise, the Examiner must withdraw the

rejection. Lee does not disclose each element of claim 21, and thus, the §102 rejections of claim 21 and its dependent claims fail.

The Examiner also rejected independent claim 38 as being anticipated by Lee for substantially the same reasons as those stated for claim 21. However, claim 38, which is directed to a method of link control in a looped WDM optical network, includes language similar to that of claim 21. As such, for reasons similar to those stated above, Lee also fails to anticipate claim 38 or any of its dependent claims.

The Examiner also maintained the provisional rejection of claims 21-40 on the grounds of non-statutory obviousness-type double patenting over claims 14-26 of co-pending Application No. 10/542,296 in view of the patent to Allen (U.S. Pat. No. 6,388,802). This rejection is improper, however, because claims 21-40 include limitations that neither the '296 application nor Allen, teach or suggest, alone or in combination.

Particularly, the '296 application does not disclose a link control laser as claimed, and thus, cannot teach or suggest both ASE and a link control laser as claimed. The '296 application discloses a means for positioning a gain peak at a specified wavelength, but never provides any details as to what those means are. Allen also fails to teach or disclose a link control laser in addition to ASE as claimed. In fact, Allen does not allow laser radiation to be injected into the loop at a first location to circulate in the loop. In contrast to the claimed invention – and to what the Examiner says the '296 application suggests - Allen discloses removing the radiation from the loop.

There can be no rejection of claims 21-40 on the grounds of non-statutory obviousness-type double patenting in light of the cited references. Neither teaches or suggests all the claim elements, and one of the references (i.e., Allen) appears to teach away from injecting laser radiation into the loop. Accordingly, the claimed invention is distinct from the cited references

alone and in combination. The rejection is improper, and Applicants respectfully request that the Examiner withdraw the rejection.

For the forgoing reason, it is respectfully urged that the present application is in condition for allowance and notice to such effect is respectfully requested.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read "Stephen A. Herrera", is written over a horizontal line.

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